

Use and Implementation of DIGGS: A Technical Workshop and Demonstration

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ABSTRACT

Geotechnical engineers have been hearing about and waiting for completion of a geotechnical data management project commenced by the Federal Highway Administration (FHWA) some 15 years ago. The standardized geotechnical data management concept referenced as Data Interchange for Geotechnical and Geoenvironmental Specialists (DIGGS) was recently completed by the Ohio Department of Transportation (ODOT), with technical support provided by the Geo-Institute of the American Society of Civil Engineers (G-I). Adoption of DIGGS by the geoprofessional community will facilitate data management, data transfer, and data visualization capabilities. As such, participants from ODOT, FHWA, the G-I, and the DIGGS development team believe that DIGGS will provide major benefits to the geotechnical community. Unfortunately, although the project is complete, the geo-profession again finds itself waiting.... this time, we find ourselves waiting for the implementation support by geotechnical software vendors who are needed to allow the profession to fully realize the benefits of DIGGS.

Despite the early struggles associated with any new (and in the case of DIGGS, we hesitate to say “revolutionary”) system, DIGGS is ready for adoption and use. This workshop is organized to provide the long-awaited guidance for developing and using DIGGS files. The presentation will be organized in the following three sections:

- **History and Benefits:** This will be a short introduction to the concept and benefits of geotechnical data management.
Examples of other geotechnical data management efforts will be presented, culminating in a brief discussion regarding the development (and benefits) of DIGGS.
- **Implementation Workshop:** This will focus on a hands-on demonstration of DIGGS. Participants will be provided an example “conventional” data file that includes laboratory data and a geotechnical boring log. Also included will be a valid DIGGS file of these data, instructions regarding how the user/participant can develop similar files using their own data, and how to then obtain plots, graphs, and tabulated summaries in “human readable” form. The discussion will provide step-by-step instructions regarding development and use of DIGGS files that they can follow, including a presentation of the level of hardware and software support requirements.
- **Future of DIGGS:** Once the participants can develop and use a valid DIGGS file, a vision will be presented regarding the future of DIGGS, including guidance regarding the level of effort needed for implementation, a long-term maintenance strategy, and convening a DIGGS Advisory Panel and Users Group. The presentation will conclude with a discussion regarding future development costs, a viable Business Model for sustaining the DIGGS initiative, and a discussion regarding the role of agencies, consultants, and software vendors.

After years of talk, the steps are now in place for full DIGGS adoption. Several State Departments of Transportation ((DOTs) have taken the steps to require the preparation and submission of DIGGS files on future projects. FHWA, ODOT, the G-I all applaud this effort and foresight. Our role in the future is to help provide technical support and training to make this long-awaited dream a reality. This presentation and Workshop is anticipated to provide a viable first step in this effort.

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